ICHTHYOLOGY.—Ichthyocampus pawneei, *a new pipefish from the Bahamas.*[1]

Earl S. Herald, Steinhart Aquarium, California Academy of Sciencies. (Communicated by L. P. Schultz.)

In the syngnathid section of the forthcoming Bikini report, the writer presents a partial treatment of the 15 species in the genus *Ichthyocampus*. Fourteen of these, including two that are new, are limited to the Indo-Pacific region. The fifteenth member is also new and is the only species of the genus to occur in the Atlantic. It is described in this preliminary paper in order to avoid description in the Bikini report, which deals primarily with Central Pacific fishes.

Ichthyocampus pawneei, n. sp.

Holotype.—Bingham Oceanogr. Coll. no. 3327, 22 mm, juvenile, taken at Guen Cay, Bahamas, by the *Pawnee*, station 6, surface, February 27, 1927.

Diagnosis.—Dorsal fin rays 26; pectoral 10–11 (?); anal 0; caudal 8 (?); dorsal fin covering 1 trunk ring and 9½ tail rings; trunk rings 17; tail rings 32; head in standard length 7.6; dorsal in head 0.72; snout in head 3.22; lateral trunk ridge continuous with inferior tail ridge; superior trunk and tail ridges continuous; inferior trunk and tail ridges discontinuous; and lateral tail ridge absent, as is characteristic of *Ichthyocampus*.

Description.—The top of the very short snout is raised to a dulled ridge and forms a distinct hump between the maxillary and interorbital area. At the interorbital area the snout ridge branches and is continuous with the markedly elevated anterior supraorbital ridges, and thus a conspicuous Y is formed by these three structures. Prenuchal and nuchal ridges are barely visible, and the opercular ridge extends faintly for about one-half of the length of the opercle. All other head ridges are absent, including the posterior supraorbitals as well as those usually found on the pectoral cover plate. The trunk and tail ridges are slightly raised, but the body angles are distinct and are not rounded. The scutella are quite large and in width are equal to the distance between the nearest edges of the adjacent scutella, or to 1½ times that distance. The pectoral fins are very small and are equal in length to approximately the width of a single trunk ring. No cirri are present.

This species is named in honor of the collecting ship, the *Pawnee*.

[1] Received May 8, 1950.

MAMMALOGY.—*Validity of the subspecies* Enhydra lutris nereis, *the southern sea otter.*[1]

Victor B. Scheffer and Ford Wilke, U. S. Fish and Wildlife Service. (Communicated by Herbert Friedmann.)

The sea otter at one time occupied the rim of the northern Pacific Ocean and the southern Bering Sea from the islands of Guadalupe and Natividad, Lower California, to the Pribilof Islands, Alaska, and Hokkaido, Japan. It is now restricted to southern California (several hundred animals), British Columbia (occurrence doubtful), continental Alaska (several hundred), the Aleutian Islands (several thousand), the Commander Islands (perhaps a thousand), and the Kurile Islands (several hundred to several thousand). The former range of the sea otter was, with the exception of a 200-mile gap of open water between Attu and Copper islands, a continuous sweep.

In 1904, C. Hart Merriam described the sea otter of southern California as a "well-marked subspecies," *Latax lutris nereis*, on the basis of a single skull from the Channel Islands (Proc. Biol. Soc. Washington **17:** 159). In 1930, Joseph Grinnell compared the type of *nereis* with "an example . . . of the same sex and age" from the Aleutian Islands and found differences that led him to regard the southern subspecies as valid (*Fur-bearing mammals of California*: 287. 1937). We have reexamined the specimens used by Merriam and Grinnell and have compared them with material from Alaska, Washington, Oregon, and California. Our total collection includes 56 adult skulls.

[1] Received May 3, 1950.

SKULL CHARACTERS

The diagnostic features of *nereis* as set forth by Merriam, followed by our own comments, are given below.

1. "Skull large, broad, and high, with long and high sagittal crest and swollen braincase." We find, however, that southern specimens tend to be slightly *smaller* than northern ones:

CONDYLOBASAL LENGTH IN MILLIMETERS

Locality	Males			Females		
	N	Mean	Range	N	Mean	Range
Western Alaska	8	140	130–145	3	131	131–131
Washington and Oregon	2	135	133–137[1]	2	129	126–133[2]

[1] Including the type of *nereis*, condylobasal length 133 mm.
[2] Including a very old animal (A.M.N.H. No. 28226), which is certainly a female, although the sex is not recorded.

Grinnell, too, states that "the general size of the type of *E. l. nereis* is decidedly smaller [than an Aleutian skull of comparable age] and the brain case is relatively higher" (*op. cit.*: 287–288). Grinnell's analysis of the difference between two adult male skulls, one the type of *nereis* (U.S.N.M. no. 133508) and one from Kiska, Alaska (U.S.N.M. no. 13222), is good. Perhaps inadvertently, though, he selected as a typical Alaskan skull an extremely large one. Out of 43 skulls of adult male, and sex-unknown, sea otters from Alaska, specimen no. 13222 is exceeded in size by only one.

We find that southern sea-otter skulls (with the exception of Merriam's type) are no higher than northern ones. The height measurement is a difficult one to take and is unsatisfactory because of irregularities on the skull.

2. "Anterior part of zygomata more broadly and squarely expanded." We are unable to see a consistent difference between northern and southern skulls.

3. "Basioccipital forming an angle with basisphenoid." The meaning of this statement is not clear. Perhaps Merriam meant the angle formed by the planes of the two bones. In subadult northern as well as southern skulls, the plane of one bone usually forms an angle with the plane of the other. After the suture has knit, the angle or convexity tends to disappear, and the two bones to align themselves in the same plane.

4. "Coronoid processes sloping strongly backward." We have sketched the left process in six adult skulls of similar size (Fig. 1). One California specimen (Fig. 1, *a*) shows a definite backward slope; another (Fig. 1, *d*) does not.

5. "Sagittal crest much higher and more decurved posteriorly." The height of the sagittal crest is a poor diagnostic character because it varies so greatly with age and because it is difficult to measure. The evidence offered by the crest is thus inconclusive.

Locality	Males		Females	
	Condylobasal length	Height of sagittal crest	Condylobasal length	Height of sagittal crest
Western Alaska	140[1]	7.6[1]	133[2]	5
			131	5
			131	6
			131	4
Oregon and California	137	3	133[2]	9
			127	4

[1] Mean of 7 specimens, CBL 139–142; HSC 7–8.
[2] Quite certainly a female.

6. "Inner cusp of large upper premolar (*pm 3*) elongated along anterior part of inner lobe (instead of conical) and showing a tendency to subdivide into two parts." This is a peculiarity of the type specimen. Merriam's "*pm 3*" is presumably Miss Fisher's "*PM 4*" (Journ. Mamm. **22**: 429. 1941).

7. "1st lower molar broader and more broadly truncate posteriorly." We are unable to see these differences. Grinnell suggests as a diagnostic

Locality	Males		Females	
	Condylobasal length	Width of molar	Condylobasal length	Width of molar
FIRST LOWER MOLAR				
Western Alaska	140[1]	13.0[1]	131	13.0
			131	12.8
			131	12.7
Oregon and California	137	13.1	133[2]	13.0
			127	13.0
LAST UPPER MOLAR				
Western Alaska	139[3]	20.3[3]	131	19.3
			131	19.1
			133[4]	20.9
Oregon and California	137	20.0	133[2]	20.6
	133	21.0	125	18.5

[1] Mean of 7 specimens, CBL 139–142 and WM 12.6–13.8.
[2] Quite certainly a female.
[3] Mean of 7 specimens, CBL 139–142 and WM 19.7–21.1.
[4] The type of *nereis*.

feature of the southern sea otter the greater width of the last upper molar. In 14 specimens available to us, however, this is not demonstrable. Regardless of sex or locality, the fully adult upper molar is about 20–21 mm. in diameter.

BODY LENGTH

Merriam states that the type "specimen in the flesh measured 6 feet in length." This is unquestionably an error. Stephens (*California mammals*: 233. 1906) describes the size of the California sea otter as "length about 1200 mm (48 inches)." Miss Fisher (California Fish and Game **26:** 281. 1940) gives the size of two subadult males from California as: Length in millimeters, 1,313 and 1,270 [inches, 51.7 and 50]; weight in pounds, 65 and 63. To the best of our knowledge, the largest Aleutian sea otter on record, a male we collected in 1947, had a length of 58 inches. Since there appear to be no authentic measurements of an adult sea otter from the California, Oregon, or Washington coasts, it is impossible at the present time to compare the sizes of northern and southern animals.

PELAGE

Merriam did not mention pelage in his description of *nereis*, since he had only a skeleton to work with. Chase Littlejohn, who formerly hunted sea otters in Alaska and California, says that on the southern animal "the fur is just as pretty but shorter" (*fide* Hall, in Journ. Mamm. **26:** 91. 1945). From Stevenson (Rep. U. S. Comm. Fish and Fisheries for 1902: 321. 1904) we quote, as follows:

> The color of the pelt varies considerably, the predominant shade being lustrous brown brightened with silvery overhairs. Some pelts are a deep brown or a brownish black, and are known in the trade as 'black.' Others are brown, with a tendency toward bluish green or dark-plum color, and are known as 'dark.' The fur is in all cases lighter on the abdomen than on the back. The hair on the head is lighter in color, and is light brown in the brown variety, but in the black animals it is almost completely white, the effect of the large number of white overhairs. The skins from British Columbia, Washington, and Oregon are frequently of a yellowish-brown hue, and albino skins have been taken rarely.

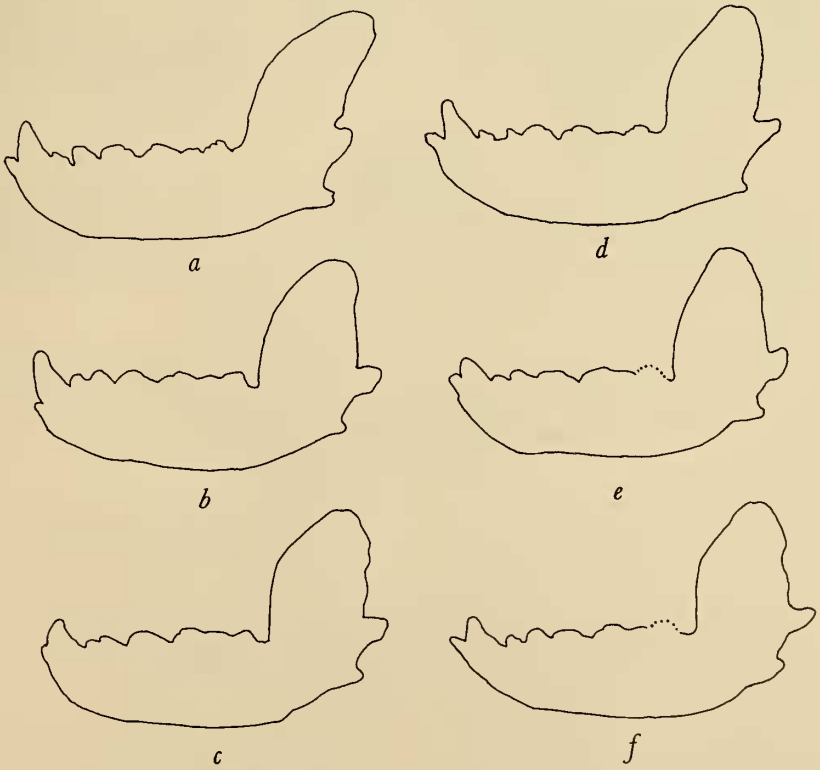

Fig. 1.—Left coronoid processes in six adult sea otters: *a*, California male, C.M.V.Z. no. 84812; *b*, Alaska male, ECH 95; *c*, Alaska male, ECH 21–48; *d*, California (female?), A.M.N.H. no. 28226; *e*, Alaska female, ECH 34; *f*, Alaska (female?), ECH 20–48.

Here is evidence of a color difference between sea otters inhabiting northern and southern waters. Whether it is valid throughout the seasons of the year we can not say. (In the Alaska fur seal, pelagic specimens taken in winter and spring are consistently grayer than those taken in summer, which are browner.)

CONCLUSIONS

In sea otters from California and Oregon the skull size is slightly smaller, and the coronoid processes may perhaps slope more strongly backward, than in sea otters from western Alaska. We have for study, however, only eight adult skulls from the southern region, three of them known-sex and five unknown. For lack of measurements, body size in northern and southern animals can not be compared at the present time. There is testimony that the pelage of sea otters inhabiting the warmer waters is relatively shorter and more yellowish. Some of the features described by Merriam in 1904 as diagnostic of the subspecies *nereis* are applicable to the type specimen alone, while others are applicable to northern as well as southern individuals. Though there may be a north-south gradient in certain features, we suspect that it is a smooth and uninterrupted one. Were we handed a skull from an unknown source we could not, with confidence, assign it to its proper locale. Neither on the basis of demonstrable variation nor on the grounds of geographical isolation is there support for a southern subspecies of the sea otter.

SPECIMENS EXAMINED

Fifty-six adult skulls, that is, with basi-occipital-basisphenoid suture closed: California, 5 (1 male, U.S.N.M.; 1 male, C.M.V.Z.; 2 sex-unknown, U.S.N.M.; 1 sex-unknown, A.M.N.H. Oregon, 2 (1 female, U.S.N.M.; 1 sex-unknown, U.S.N.M.). Washington, 1 (1 sex-unknown, U.S.N.M.). Southeastern Alaska, 2(1 sex-unknown, U.S.N.M.; 1 sex-unknown, C.M.V.Z.). Western Alaska, 46 (9 males, 3 females, 34 sex-unknown, U.S.N.M.).

ACKNOWLEDGMENTS

For assistance in this study we are deeply indebted to Elmer C. Hanson, who provided a large collection of skulls from the beaches of Amchitka Island; to Seth B. Benson, California Museum of Vertebrate Zoology; Harold E. Anthony, American Museum of Natural History, and David H. Johnson, U. S. National Museum.

Obituary

Carlos de la Torre.—On February 19, 1950, at his home in Havana, Cuba, Don Carlos de la Torre y Huerta, an honorary member of the Washington Academy of Sciences, terminated his mundane career, a victim of America's foremost malady, cancer.

Some achieve greatness in the field of science, education, government, or politics, but it is rarely that one finds all these qualities combined in one individual, as was the case in Don Carlos—Cuba's grand great man.

He was born on May 15, 1858, in Matanzas, where he received his early education in his father's colegio. He continued his studies at the Royal University of Havana, where he received the degree of "bachiller de artes." He next went to Spain, where he enrolled at the University of Madrid and achieved the degree of doctor en ciencas naturales on November 1, 1883. Returning to Cuba, he again became affiliated with the university, which later, after Cuba had achieved its independence, abbreviated its title to "University of Havana." Here he enrolled for the degrees of doctor of medicine and pharmacy, while occupying an assistantship. From this he advanced steadily to professorship, deanship, and finally to the presidency of the university—a most conspicuous, able, and beloved figure in each post. His many contributions and textbooks to Cuba's graded schools carried his name to every house hold in the island.

In government he served his country on various important committees as well as mayor of the City of Havana; also as a representative of his government to various congresses in America and Europe.

In the field of science he was Cuba's most outstanding figure. His many contributions to malacology, his major but by no means only field of endeavor, have received world-wide recognition.

Don Carlos was the recipient of many honors bestowed upon him by educational and scientific institutions in Europe and America. Harvard University bestowed upon him, honoris causa, the degree of doctor of science.

As a person, we may say of him that he was frank, fearless, able, helpful, and lovable—a man who made friends wherever he went, whose genial presence will be missed by all who knew him.

Paul Bartsch.